

I claim:

1. A composition with synergistic anti-inflammatory properties in
5 conditions induced by the activation of mast cells, consequent degranulation
of said cells and secretion of inflammatory biomolecules, comprising a non-
bovine proteoglycan sulfate and an unrefined olive kernel extract ("OKE"), and
one or more of a hexosamine sulfate, a flavone, S-adenosylmethionine
("SAM"), a histamine-1 receptor antagonist, a histamine-3 agonist, an
10 antagonist of the actions of Corticotropin Releasing Hormone ("CRH"), a
hyaluronate salt, a rutin, a niacin, a polyunsaturated fatty acid, a polyamine,
caffeine and an anti-cancer chemotherapeutic agent, in an appropriate
excipient or vehicle.

15 2. The composition according to claim 1, wherein said sulfated
proteoglycan is selected from the group consisting of non-bovine chondroitin
sulfate, keratan sulfate, dermatan sulfate and a hyaluronate salt.

20 3. The composition according to claim 2, wherein said chondroitin
sulfate is chondroitin sulfate C derived from shark cartilage.

4. The composition according to claim 1, wherein said hexosamine
sulfate is D-glucosamine sulfate.

25 5. The composition according to claim 1, wherein said flavone is
selected from the group consisting of quercetin, myricetin, genistein, rutin
and kaempferol.

30 6. The composition according to claim 1, wherein said unrefined kernel
extract contains polyphenols and alpha-tocopherol.

7. The composition according to claim 1, said composition being for

oral use, comprising 10-3,000 mg per capsule or tablet of each of non-bovine chondroitin sulfate C, quercetin and D-glucosamine sulfate, with 900-1200 mg of OKE.

5 **8. The composition according to claim 7, further supplemented with 3-1,000 mg of SAM per capsule or tablet.**

10 **9. A composition according to claim 1, wherein said inflammatory diseases are selected from the group consisting of: arthritis, cancers, fibromyalgia, inflammatory bowel disease, interstitial cystitis, irritable bowel syndrome , migraines, angina, chronic prostatitis, eczema, multiple sclerosis, psoriasis, sun burn, tooth decay, periodontal disease, stressed-induced migraines, stress-induced opening of bladder mucosa, stress-induced opening of the blood-brain barrier, superficial vasodilator (flush} syndrome, 15 and hormonally-dependent cancers.**

20 **10. The composition according to claim 9, wherein said inflammatory disease is arthritis and said composition is for oral administration, comprising non-bovine chondroitin sulfate, OKE, quercetin, D-glucosamine sulfate, and, optionally, sodium hyaluronate.**

25 **11. The composition according to claim 9, wherein said inflammatory disease is arthritis and said composition is for topical use, comprising, non-bovine chondroitin sulfate, OKE, D-glucosamine sulfate, quercetin, sodium hyaluronate, and bitter willow bark extract.**

30 **12. The composition according to claim 9 for oral or aerosol use in allergic conditions, comprising non-bovine chondroitin sulfate, OKE and a flavonoid selected from the group consisting of quercetin, myricetin and kaempferol, and, optionally, a histamine-1 receptor antagonist.**

13. The composition according to claim 9, for topical use in allergic

conditions, comprising non-bovine chondroitin sulfate, OKE, myricetin, alpha-tocopherol, and, optionally, a histamine-1-receptor antagonist.

5 **14. The composition according to claim 13, wherein said antagonist is diphenhydramine, hydroxyzine, azatadine, azelastine or cyproheptadine.**

10 **15. The composition according to claim 9 wherein said inflammatory disease is superficial vasodilator “flush” syndrome, said composition comprising a non-bovine proteoglycan, OKE, a flavonoid, bitter willow bark extract, and, optionally, cyproheptadine or azatadine.**

15 **16. The composition according to claim 9, wherein said inflammatory disease is multiple sclerosis, said composition comprising non-bovine chondroitin sulfate, OKE, quercetin or myricetin, hydroxyzine, and, optionally, caffeine, SAM and interferon-beta.**

20 **17. The composition according to claim 9, wherein said inflammatory disease is migraine headaches, and said composition comprises non-bovine chondroitin sulfate, OKE, quercetin, and azatadine.**

25 **18. The composition according to claim 1, said composition being for oral use, comprising 150-300 mg per capsule or tablet of each of non-bovine chondroitin sulfate , quercetin and D-glucosamine sulfate, with 900-1200 mg of OKE, and, optionally, 100-200 mg sodium hyaluronate and/or 100 mg SAM.**

30 **19. The composition according to claim 1, said composition consisting of an ointment or cream for topical application, comprising, in % by weight, non-bovine chondroitin sulfate, 5; OKE, 15; D-glucosamine sulfate, 5; quercetin, 3; sodium hyaluronate 5; and, bitter willow bark extract 5.**

20. The composition according to claim 19 supplemented by at least one of the following, each 1-5 mg %: histamine-1 receptor antagonists

diphenhydramin , hydroxyzine, azelastine, azatadine and cyproheptadine.

21. The composition according to claim 1, said composition comprising a mouth wash composition, consisting of non-bovine chondroitin sulfate and quercetin, each 0.3-0.4 M; OKE, 1% (v/v); and, optionally, at least one of D-glucosamine sulfate, 0.4 M and SAM, 0.15 M, in a mouth wash vehicle.

22. The composition according to claim 1, said composition consisting of a tooth paste, comprising, in mg%, non-bovine chondroitin sulfate, 5; OKE, 1; quercetin, 3, and, optionally, D-glucosamine sulfate, 5, in a tooth paste vehicle.

23. The composition according to claim 1, said composition consisting of a sunscreen composition, comprising, in mg%, non-bovine chondroitin sulfate, 5; OKE, 10; quercetin 3; and at least one of D-glucosamine sulfate, 5, and titanium dioxide, 5, in a sun screen vehicle.

24. The composition according to claim 1, for use in treating migraine headaches, said composition comprising, in mg, non-bovine chondroitin sulfate, 50 ; OKE, 150; guercetin, 100 ; azatadine, 4; and, optionally, a CRH antagonist.

25. The composition according to claim 1, said composition comprising, in mg, non-bovine chondroitin sulfate, 50: quercetin, 400; hydroxyzine, 50; and, optionally, a CRH antagonist.

26. The composition according to claim 1, said composition comprising, in mg, non-bovine chondroitin sulfate, 100; OKE, 900-1200; D-glucosamine sulfate, 50; and quercetin, 100.

27 . The composition according to claim 1, comprising, in mg%, non-

bovine chondroitin sulfate, 5; OKE, 900-1200; D-glucosamine sulfate, 5; and quercetin, 3.

28. **The composition according to claim 1, wherein said inflammatory**
5 **disease is cancer and wherein said composition is designed for oral use,**
comprising 25-50 mg of genistein and 150-300 mg of quercetin, and 900-1200
mg OKE.

10 **29. The composition according to claim 1, wherein said inflammatory**
disease is atherosclerosis with or without myocardial ischemia, comprising
100-300 mg each of non-bovine chondroitin sulfate , myricetin, folic acid and
SAM, and 900-1200 mg OKE , in a vehicle for oral use.

15 **30. The composition according to claim 1, wherein said inflammatory**
disease is interstitial cystitis or prostatitis, said composition comprising, in
mg, 100-300 of non-bovine chondroitin sulfate, 900-1200 of OKE, 50-300 D-
glucosamine sulfate, 100-300 of sodium hyaluronate, 100-400 quercetin, in a
vehicle for oral use.

20 **31. The composition according to claim 1, wherein said inflammatory**
disease is multiple sclerosis, said composition comprising, in mg, 50-300 each
of non-bovine chondroitin sulfate, myricetin, hydroxyzine and SAM, 900-1200 of
OKE, and, optionally, interferon-beta, in a vehicle for oral use.

25 **32. The composition according to claim 1, said composition**
comprising, in mg, non-bovine chondroitin sulfate 200; OKE, 450; myricetine,
200; and diphenhydramine, 5 mg.

30 **33. The composition according to claim 1, said composition**
comprising, in mg, non-bovine chondroitin sulfate, 50; OKE, 900-1200;
kaempferol, 100; SAM, 50; folic acid, 50; and niacin, 100.

34. The composition according to claim 1, wherein said inflammatory disease is superficial vasodilation flush syndrome, said composition comprising 50 mg non-bovine chondroitin sulfate; OKE, 450 mg; 350 mg quercetin, 5% by weight bitter willow bark extract, and, optionally, 4 mg cyproheptadine or azatadine.

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35. The composition according to claim 1, wherein said inflammatory disease is skin allergy, said composition comprising, in % by weight, 5 each of aloe vera, non-bovine chondroitin sulfate and alpha-tocopherol, 15 of OKE, 10 and, optionally, azelastine.

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36. The composition according to claim 1, wherein said inflammatory disease in allergy or allergic asthma, comprising 200 mg of myricetin, 200 mg of non-bovine chondroitin sulfate, and, optionally, azelastine or hydroxyzine.

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38. The composition according to claim 1, wherein said inflammatory disease is a hormonally-dependent cancer, comprising, in mg, non-bovine chondroitin sulfate, 150; OKE, 450; quercetin, 250; genistein, 50; and, optionally, tamoxifen or raloxifen, 10.

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39. The composition according to claim 1, wherein said inflammatory disease is allergic conjunctivitis, comprising quercetin, 0.05%; non-bovine chondroitin sulfate, 2.0%; OKE, 0.001%; and, optionally, azelastine 0.05%.